

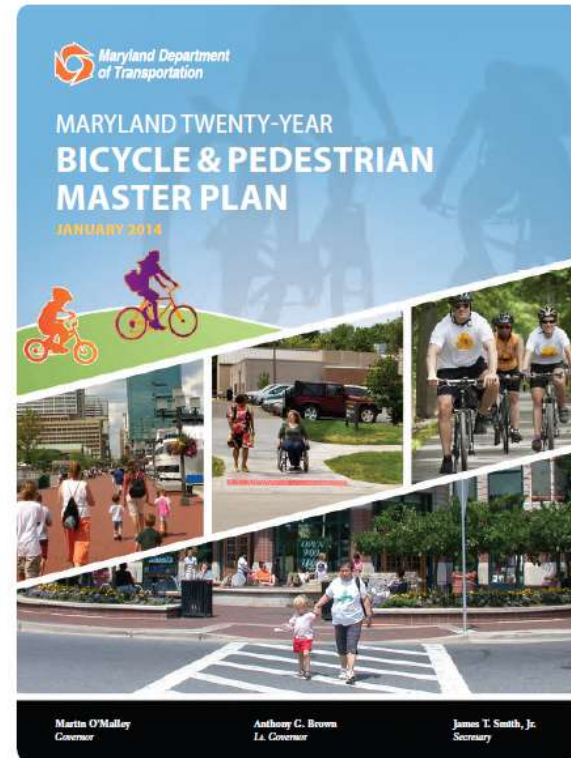
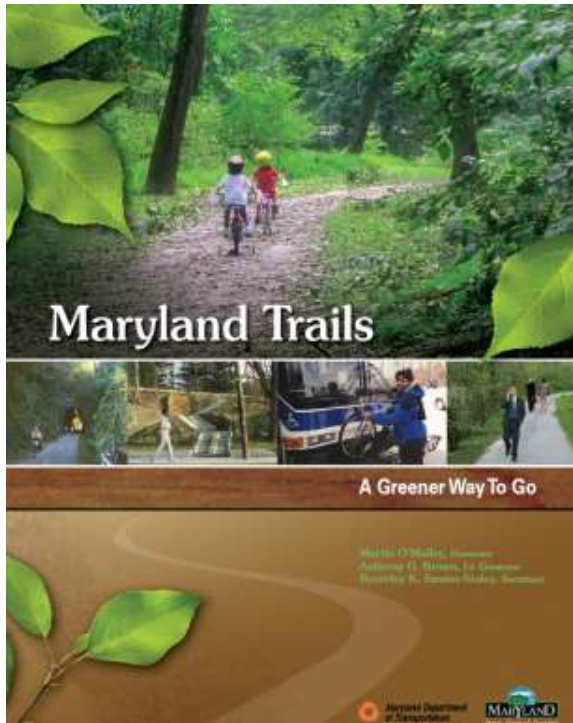


# Building Maryland's Biking and Walking Networks

Kate Sylvester

Maryland Department of Transportation

# Statewide Plans and Priorities



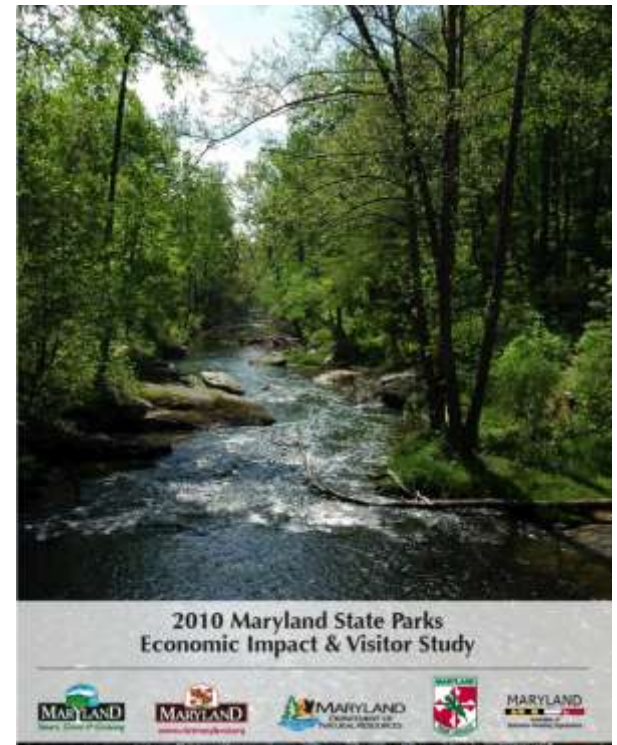
- Completing Missing Links
- Supporting walking and biking as travel modes
- Supporting community vitality
- Promoting economic development and tourism

# Why?

- **Safety:** Cyclists and pedestrians represent about 20% of Maryland fatal traffic crashes.
- **Access:** 9.3% of Maryland households do not own a vehicle.
- **Congestion:** Estimated that over 1 / 3 of trips in Maryland are shorter than 3 miles.
- **Affordability and Environment:** Transportation accounts for about 15% of household expenditures and over 30% of Maryland's greenhouse gas emissions.
- **Health:** Less than half of Maryland adults reported engaging in recommended levels of physical activity in 2004.

# Trail Economic Impacts

- Great Allegheny Passage impact study (2008)
  - \$40.8M direct spending
  - \$7.5 million in annual wages
  - Local trail users spend an average of \$17 each trail use.
  - Overnight visitors spend an average of \$114 a day in trail communities.



*A Resource for Businesses along the Great Allegheny Passage*

The Progress Fund • 425 West Pittsburgh Street • Greensburg, PA 15601  
(724) 216-9160 • [www.trailtowns.org](http://www.trailtowns.org)

# Not One Size Fits All



## Town Centers

Many destinations

Physically constrained

Competing needs

Shorter trips

## Rural Areas

Fewer intersections

Recreational walking/biking

Higher speeds

Longer trips

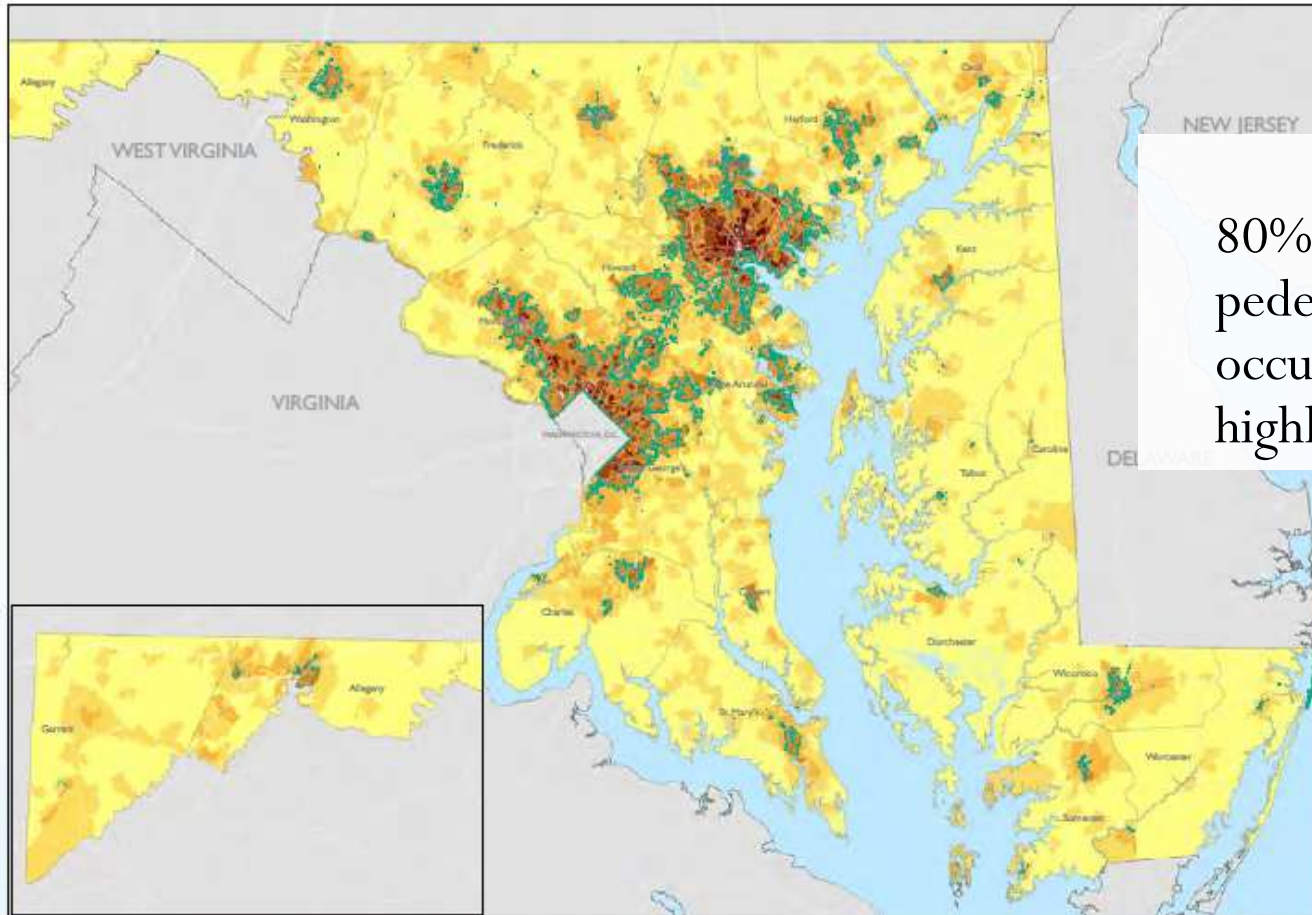


# Not One Size Fits All

*Short Trip Opportunity Areas*



0 5 10 20  
Miles



80% of bicycle and pedestrian crashes occurred in green highlighted area

# A connected network requires coordination





# Project Development Process



# Maryland Trail Funding Overview

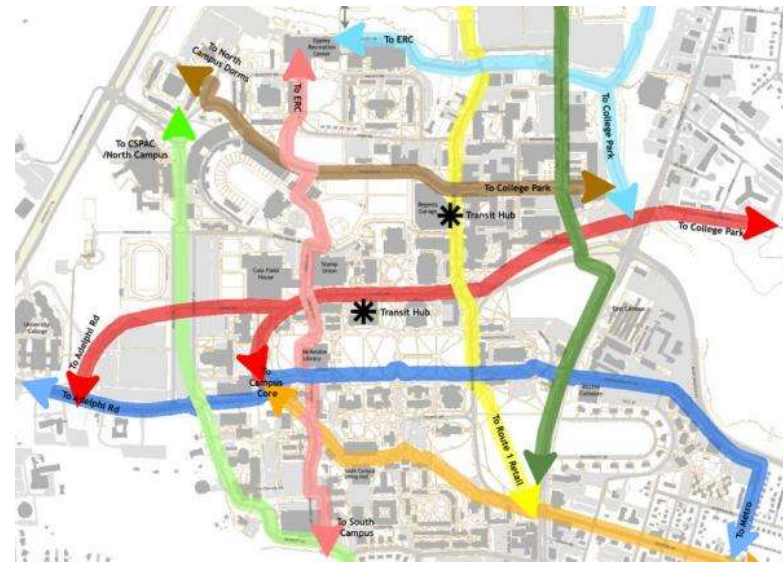
- \$15 million is available in reimbursable grant programs this year:
  - Transportation Alternatives - \$11 Million
    - Safe Routes to School
  - Federal Lands Access Program - \$500,000
  - Bikeways - \$2.3 Million
  - Recreational Trails - \$1.1 Million
- Other funding sources
  - Maryland Heritage Areas Program (MDP)
  - Program Open Space (DNR)
  - Community Legacy (DHCD)
  - Building Blocks, Green Streets (EPA)
  - TIGER (US DOT)

# Project Development Process Overview

	TA	SRTS	FLAP	Bikeways	RTP
Develop concept					
Include in local plans and priorities					
Build support and partnerships, secure funding					
Refine the concept				X	
Secure Right of Way					
Design	X	X	X	X	
Permitting	X	X	X	X	X
Construct	X	X	X	X	X
Maintain					X
Educate and Promote		X		X	X

# Develop Concept

- Identify a need or opportunity
  - Consider gaps and access to destinations (schools, main streets, jobs, transit, parks, etc.)
  - Consider connections to:
    - Nearby trails
    - Existing bike and ped network
  - Consider available right-of-way
- Begin community outreach to determine support for the concept



## College Park Master Plan Concepts

# Include in Local Plans

- Build community support and awareness
- Demonstrate support from the community and elected officials.
- Inclusion in adopted plans is critical for access to certain funding sources and developer contributions



Queen Anne's Comprehensive Plan,  
planned bike routes

# Refine the Concept

- Preliminary technical work:
  - natural resource and utility impacts, physical barriers
  - Right-of-way
  - Consider alternatives
  - Ownership and maintenance
  - Incorporate community feedback
  - Understand permitting and design requirements
  - Develop preliminary cost estimate and schedule



Garrett Trails, trail topography



Gazette, Rhode Island Trolley Trail information



# Build Support and Partnerships

- Describe project benefits
- Create and disseminate informational materials
- Determine roles for advancing the project
- Reach out to:
  - Community members and organizations
  - Advocacy groups and non-profits
  - Local elected officials
  - Local and State staff
  - Property owners and developers
  - Local businesses



Minnesota "Connect It" benefit party flyer



Bowie trail rendering

# Acquire Right of Way

- Include property needed for:
  - Construction staging and access
  - Drainage and stormwater management
  - Slope stabilization
  - Landscaping, signage, amenities, etc.
- If federal funds are used, acquisition must be conducted in conformance with the Uniform Relocation and Real Property Acquisition Act (Public Law 91-646).



# Secure Funding

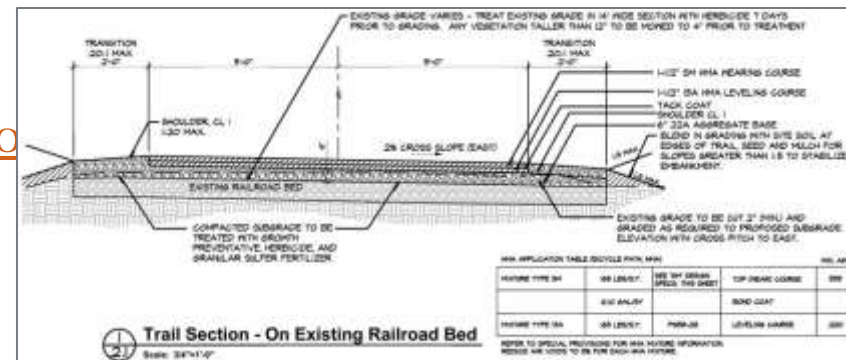
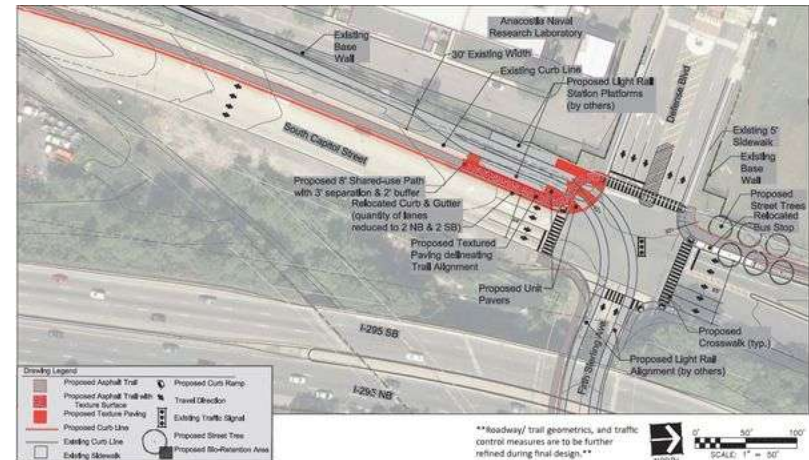
- The focus of today's workshop!
- Consult with potential funders early
- Design can be very costly, but securing qualified, professional design services may avoid delays later on
- Be creative and combine multiple funding sources
  - Local funds
  - **State/Federal transportation funds**
  - Other State/Federal funds
  - Developer contributions
  - Local business contributions
  - Tax increment financing
  - Philanthropy and non-profit groups
  - Time and materials donations

# Design & Permit

- Most projects require professional design services
- Key reviews generally occur at 30%, 65%, 90% and final design.
- Local, State and Federal permits may be needed, and some require at least 1 year to secure.

- More information:

<http://www.mde.state.md.us/programs/permits/Pages/index.aspx>



# Construct

- Follow procurement requirements and timelines
- Ensure proper construction management, oversight and inspection
- If federal funds are used, labor requirements apply
- Be sure volunteers are appropriately trained and supervised
- Keep community members and abutting property owners informed about construction schedules, maintenance of traffic, and potential disturbances



DNR trail construction



# Enjoy and Maintain

- Advertise and celebrate opening
- Ongoing maintenance
  - Landscaping
  - Trash clean-up
  - Security patrols
  - Clean up after storm events
  - Periodic repairs
  - Graffiti removal



# Maryland Bikeways Program



# Bikeways Program Overview

- **Program Goals:**
  - Make **bicycling** a true **transportation option** in Maryland
  - Maximize bicycle access to destinations (schools, transit, work, shopping, recreation, etc.)
  - Act quickly
- **State-funded reimbursable grant program**
- **Eligible applicants:** Government agencies (county, municipal, state, MPOs, RPOs, transit agencies and federal public lands agencies)
  - Can partner and pass-through funds to non-government partners
- Approximately **\$2.3 million available** for FY16 awards

# Project Types

- **Minor Retrofit**

- Up to \$100,000, no matching funds required in some cases
- Bicycle route signing, striping, sharrows, drainage grate replacement, bike racks, short trail extensions
- Can be located on local roads, state roads, or trails

- **Design**

- Preliminary through final design work
- Feasibility assessments may address preferred alignment, environmental review, right-of-way issues, ADA, local support, cost estimates.

- **Major Construction**

- Trails, shared-use paths, cycletracks
- Usually combined with federal funding sources, such as Transportation Alternatives and Recreational Trails

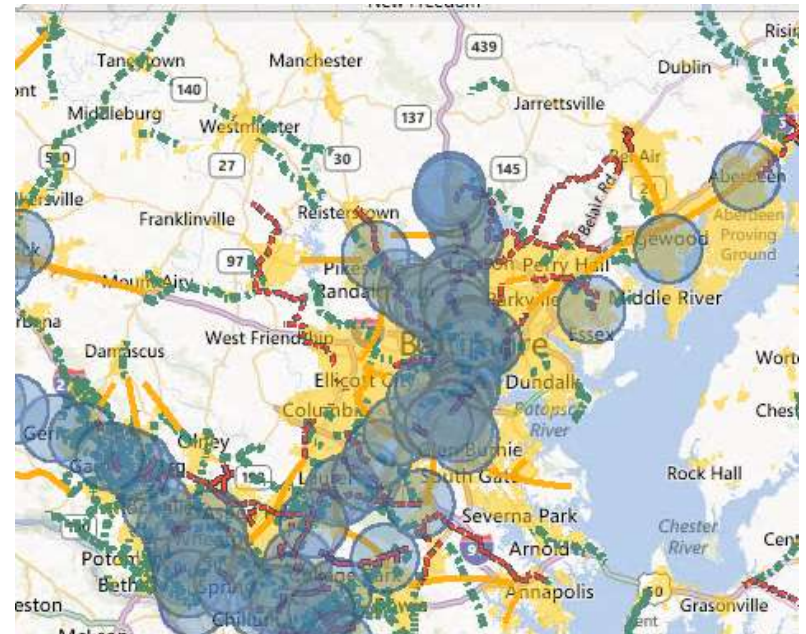
# Bikeways Priority Projects

- Enhance bicycle access to or within:
  - Rail transit station or major bus hub
  - “Missing Link” in State Trails Plan
  - Sustainable Community Area
  - Maryland Main Street
  - Census tract(s) at or below 60% of Area Median Income
  - Major institution campus
  - Central business district
  - Major tourism site
- 80% to 100% funding



# Other Eligible Projects

- Enhance bicycle access for:
  - Priority Funding Area (PFA)
  - 3 miles of a rail transit station or major bus hub
  - Projects identified in the State Trails Plan
  - Project included in the annual transportation priority letter submitted to MDOT
- 50% funding

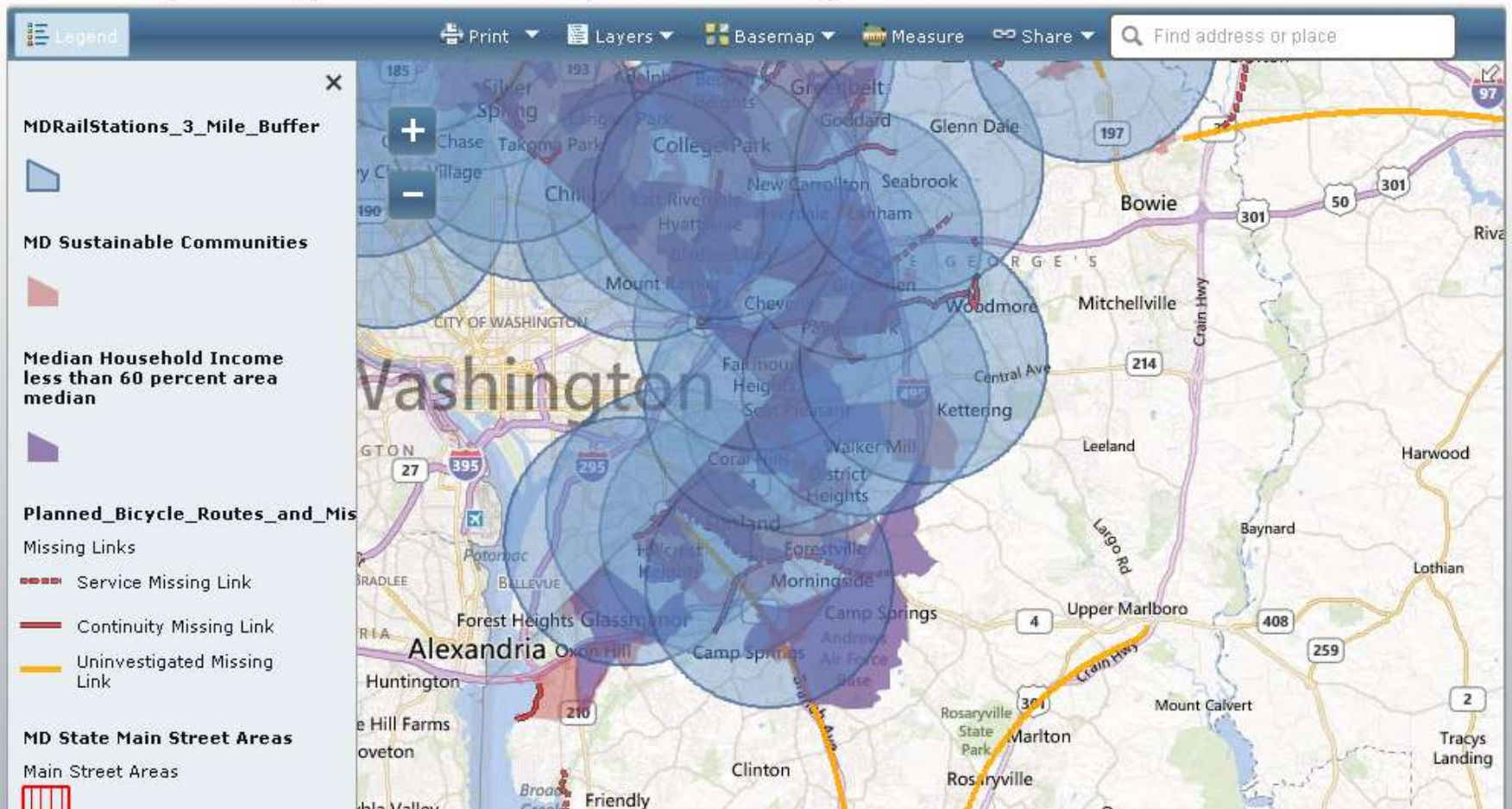


# Online maps of these areas

Access via [cycle.Maryland.gov](http://cycle.Maryland.gov)

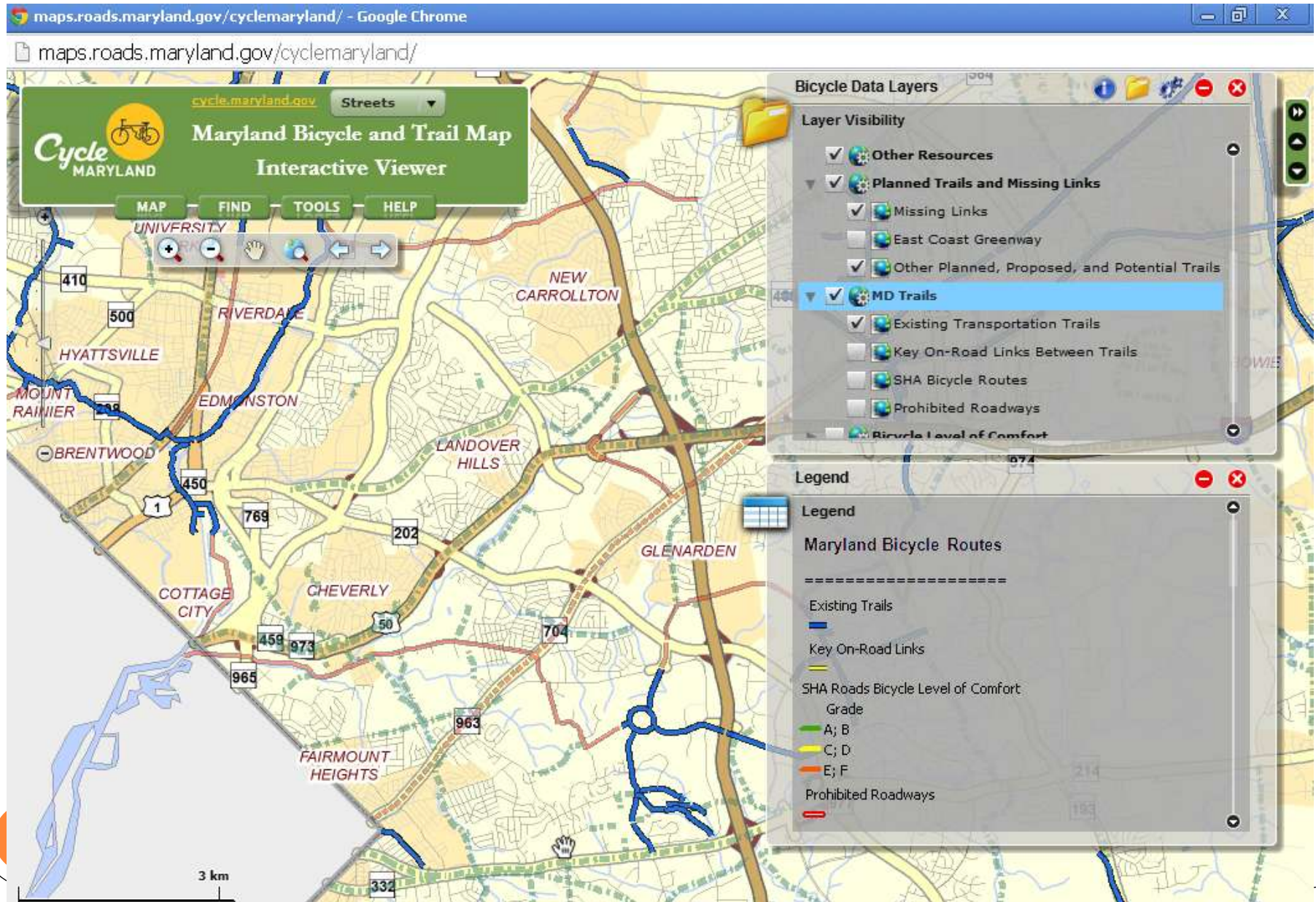


## Bikeways Program - Priority Areas Map





# State Trails Plan



# Projects that are not eligible

- Recreational route wayfinding
- Mountain bike trails or recreational loop trails
- Print or online maps
- Projects outside PFA that are not part of the State Trails Plan
- Sidewalks
- Education programs, brochures and events\*

# Matching Funds

Project Type	Bikeways Priority Project	Other Eligible Project
Minor Retrofit	100%	50%
Design	80%	50%
Major Construction	80%	50%

- Matching funds can include:
  - Federal transportation funds (eg. Transportation Alternatives, Recreational Trails)
  - Other Federal funds (eg. NFWF)
  - Non-transportation state funds (eg. Community Legacy)
  - Local funds
  - Private and non-profit contributions
  - Funds expended to advance the project no more than 24 months before the application deadline

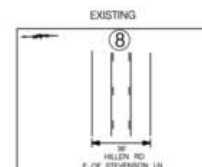
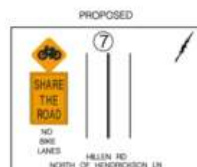
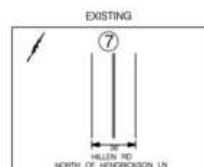
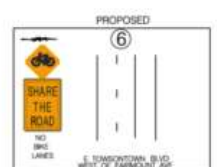
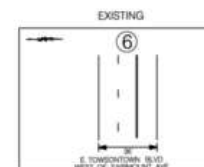
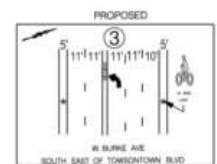
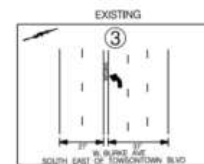
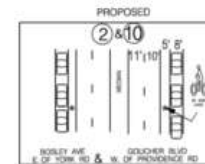
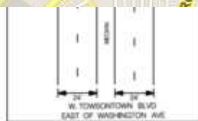
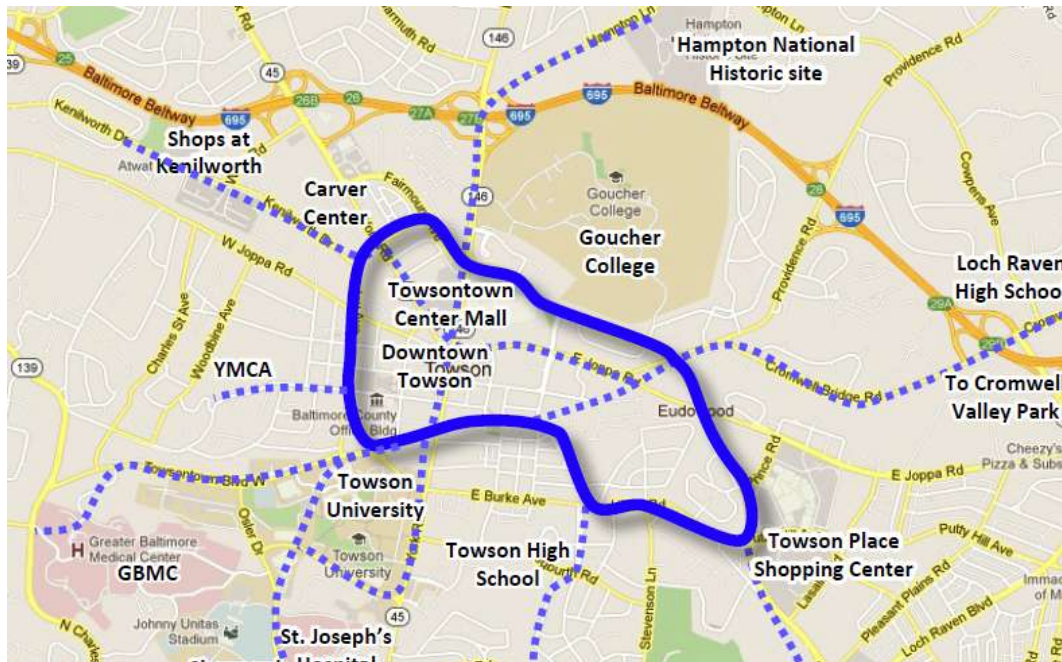


# Eligible Expenditures

- Eligible expenditures include:
  - Contracted design and construction services
  - Materials, signs, pavement markings, bike racks, benches
  - Up to 10% toward educational and promotional materials
- Regular staff time may be counted as match, but may not be reimbursed
- Grant agreement must be executed before any reimbursable expenses are incurred

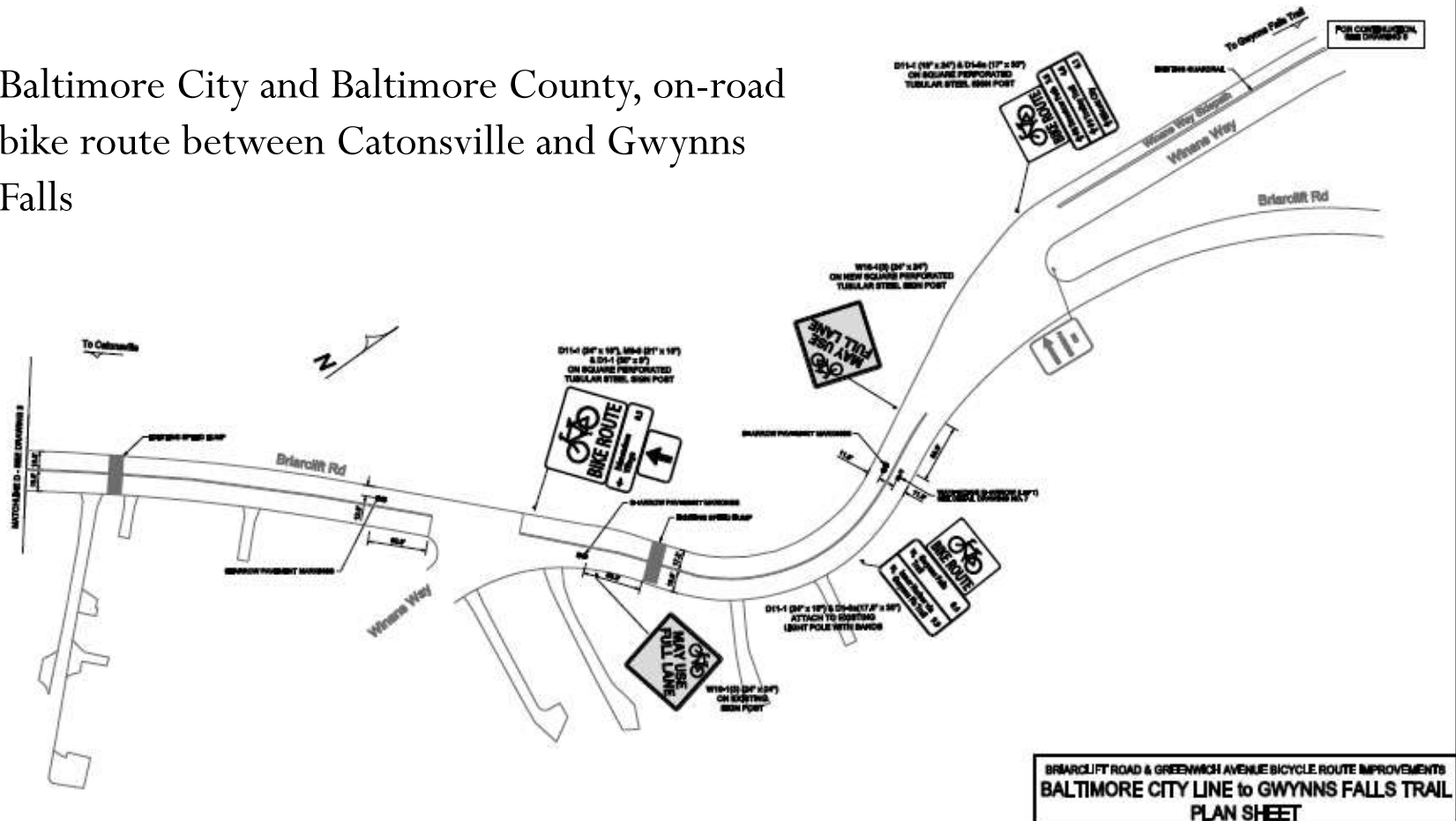
# Minor Retrofit


## Towson bike “beltway”, phases 1 and 2



# Minor Retrofit

# Baltimore City and Baltimore County, on-road bike route between Catonsville and Gwynns Falls



BRAROLFT ROAD & GREENWICH AVENUE BICYCLE ROUTE IMPROVEMENTS <b>BALTIMORE CITY LINE to GWYNNNS FALLS TRAIL</b> <b>PLAN SHEET</b>			
DATE: 11/2012	SCALE: 1" = 40'	DRN: NPS	CKD: SQ CKD: SQ APPVD: 
DEPARTMENT OF TRANSPORTATION CITY OF BALTIMORE		DRAWING NO. <b>4</b>	

# Design


# Carroll County Freedom Trail alignment



Stream  
Wetland Delineation

### Conceptual Trail Layout

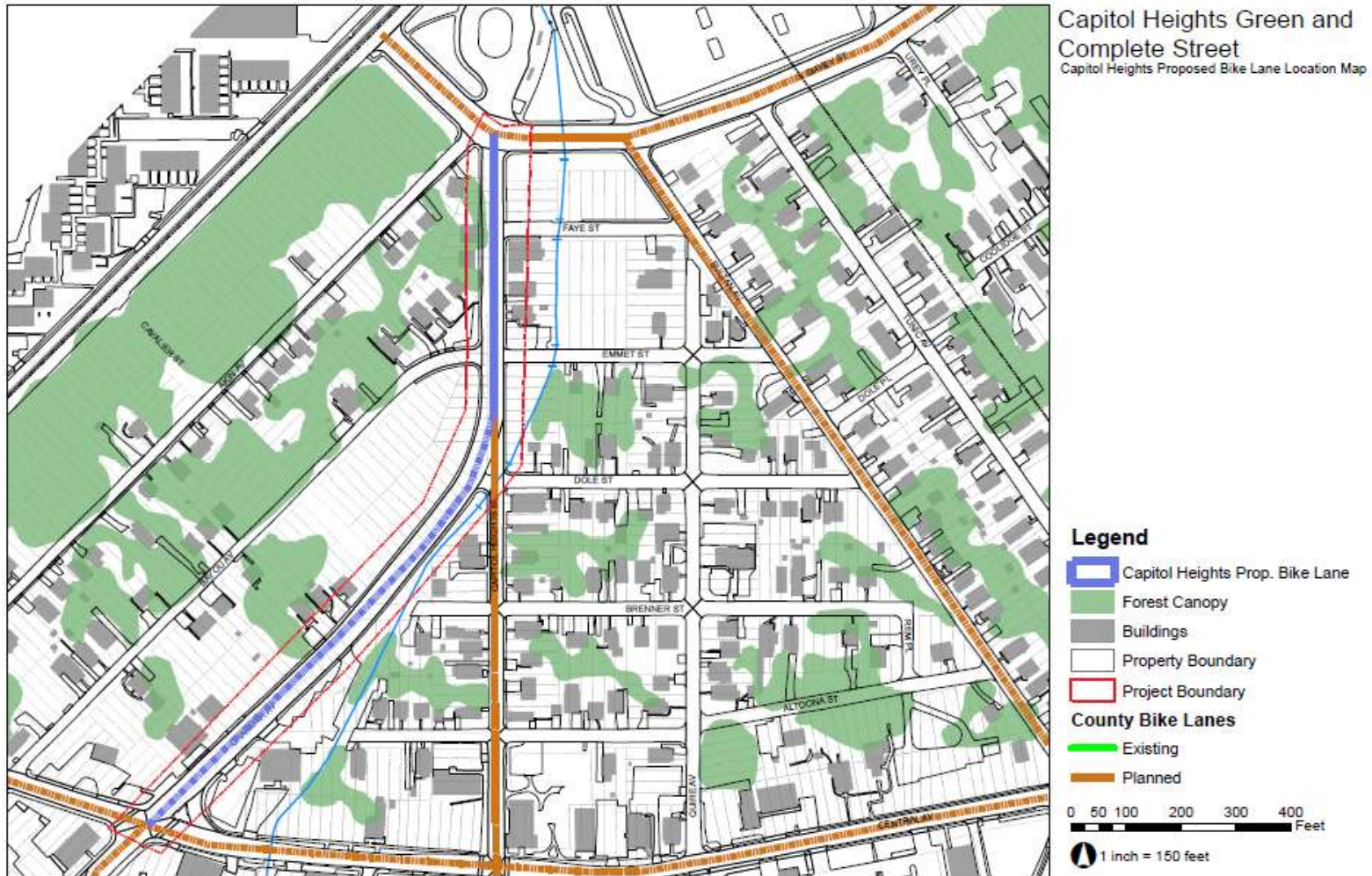
### Trail Alignment Concept

 Existing Sidewalks  
 Existing Paved Trails  
 Existing Sewer R/W (under proposed Trail)



# Design

## Capitol Heights Green and Complete Street design





# Construction

## Chestertown Rail Trail

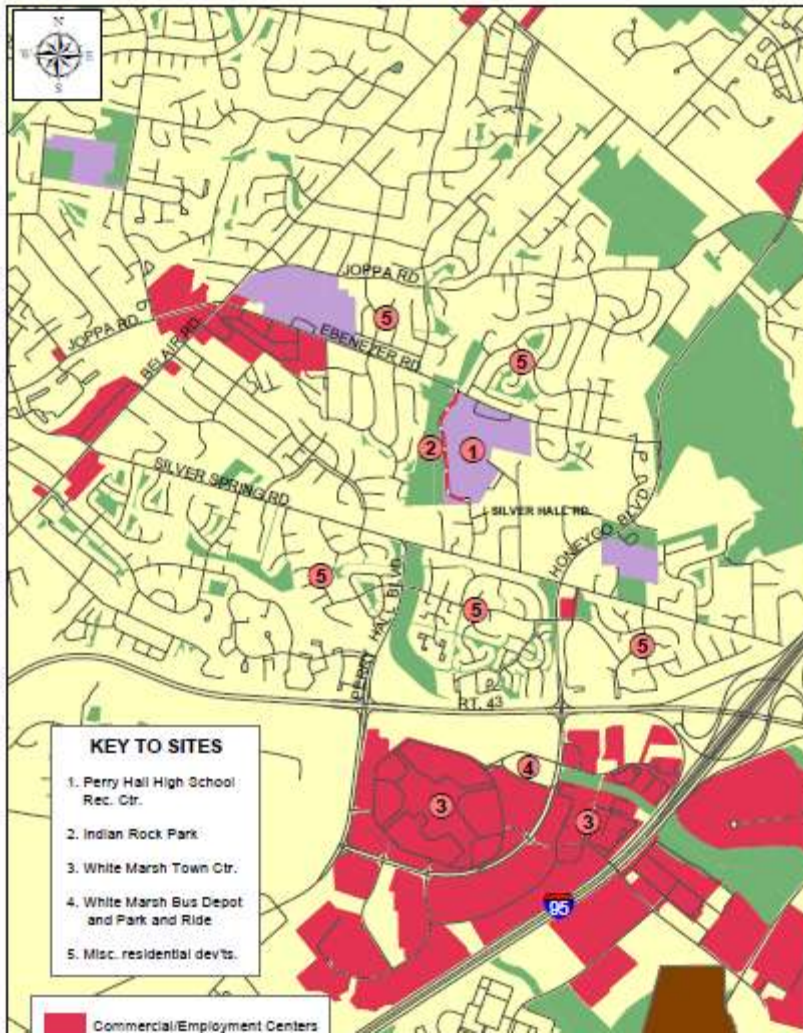




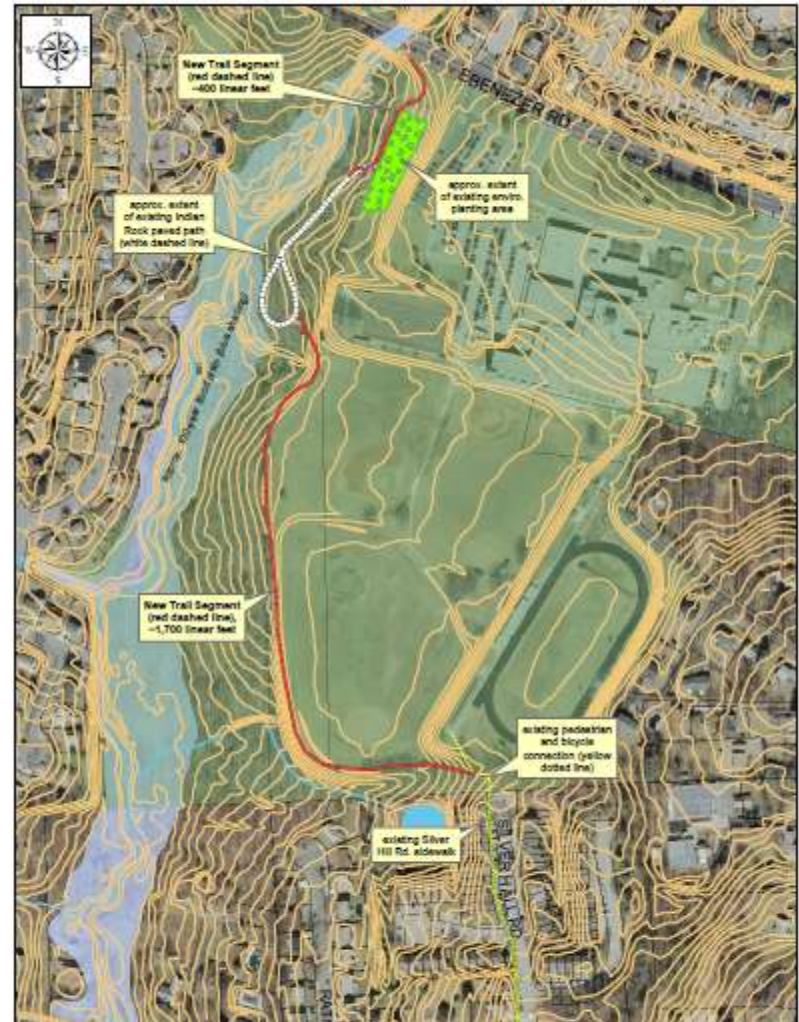
# Construction

## Baltimore County, Indian Rock Trail

VICINITY MAP WITH KEY DESTINATIONS



PROPOSED NORTHEAST TRAIL - INDIAN ROCK SECTION



# What you Need to Apply

- Eligible project sponsor and staffing/contracting plan
- Scaled project area map showing project location, existing bicycle facilities and destinations
- Secured ROW required for retrofit and construction projects
- Project description and status
- Proposed workplan and timeline
- Cost estimate prepared by qualified engineer or experienced professional
- Project ownership, maintenance and management commitment

# Typical Timeline

- **May** – Submit Application
- **September 2015** – Grant awards announced
- **October**– Grantees submit proposed schedule/workplan
- **Before Sept 2017** – Complete project and submit for reimbursement
  - Quarterly schedule updates
  - Execute Grant Agreement
  - Submit design plans for MDOT review and address comments
  - Finalize design
  - Procure under local procedures, no state review
  - Manage and inspect design/construction/implementation
  - Submit reimbursement request with invoices to document expenditures
  - Submit final report with photos, design docs, and feedback

# Grantee Expectations

- Upon award:
  - Submit project work plan/schedule
  - Execute a Grant Agreement provided by MDOT (Nov-March)
- Project Management:
  - Manage public involvement
  - Submit design plans for MDOT review, address comments and finalize design
  - Secure needed permits
  - Procure under local procedures, no state review
  - Oversee contractors and consultants
  - Maintain financial records
  - Submit quarterly schedule updates
  - Manage and inspect design/construction/implementation
  - Invoice MDOT
  - Submit final report with photos, design docs, and feedback
- Complete project with 24 months of grant award

# Design Guidelines

- 2012 AASHTO Bicycle Design Guidelines
  - Maryland MUTCD
  - SHA Bicycle Policy and Design Guidelines
  - ANPRM Shared Use Path Accessibility
  - APBP bicycle parking guidelines
  - NACTO Bikeway Design Guide
  - Facility owner ultimately responsible for design approval
- 5' bike lanes
  - Trail width (10' minimum, 11' preferred, 8' only in constrained areas)
  - Sharrow placement
  - Intersection treatments
  - Warning and wayfinding signs

# FAQs

- Do Federal procurement, wage rates, etc apply?
  - No. Unless other grant funds using federal dollars are being used for the project.
- Can a bikeways project combine design and construction?
  - Yes, as long as it is completed in the 2-year timeframe.
- Is staff time eligible for reimbursement?
  - No, but it can count as match
- What design standards apply?
  - MDOT reviews and expects consistency with national guidance. Pay particular attention to intersections!
- What if a project involves SHA right-of-way?
  - An SHA access permit will be needed, involving review and approval by the SHA District office. SHA's bicycle policy and guidelines must be followed.



# Questions?

Kate Sylvester, Community Planner  
Office of Planning and Capital Programming  
Maryland Department of Transportation  
410-865-1304

[ksylvester@mdot.state.md.us](mailto:ksylvester@mdot.state.md.us)

Funding application and program  
information available at:

[www.cycle.maryland.gov](http://www.cycle.maryland.gov)



The screenshot displays the 'MARYLAND BIKEWAYS PROGRAM FUNDING APPLICATION' form. At the top, there is a header with the Maryland Department of Transportation logo and contact information for Kate Sylvester. Below the header, the form includes sections for 'Project Title', 'Project Category' (with radio buttons for Minor Route, Feasibility Assessment, Design, and Construction), 'Project Cost' (with fields for Discretionary Funding Request, Matching Funds, and Total Project Cost), 'Project Coordinator' (with fields for Name, Title, Agency, and Address), and 'Signature' (with fields for Name, Title, Date, and Signature). At the bottom, there is a section for 'Organization Type' with radio buttons for County, City/Town, State Agency, Federal Agency, Transit Facility, and Other.